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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,463	03/10/2000	RAINER BERGSTROM	30-516	4731

7590 06/18/2003

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ARLINGTON, VA 22201-4714

EXAMINER

PRATT, CHRISTOPHER C

ART UNIT	PAPER NUMBER
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1771

15

DATE MAILED: 06/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

A 3-15

Office Action Summary

Application No.

09/508,463

Applicant(s)

BERGSTROM ET AL.

Examiner

Christopher C Pratt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-23 and 30 is/are pending in the application.
- 4a) Of the above claim(s) 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment, declaration, and accompanying remarks filed 4/10/00 have been entered and carefully considered. Applicant's amendment and declaration is not found to patentably distinguish the claims over the prior art and Applicant's arguments are not found persuasive of patentability for reasons set forth herein below.

Election/Restrictions

2. Newly submitted claim 30 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: A vessel wall comprising stiffeners of a vessel is a final product distinct from the intermediate product of claims 10-23.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 30 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harpell et al (5198280), as set forth in the previous three actions.

Applicant argues that Harpell fails to teach the narrow range claimed by applicant of 55 to 75 degrees. Applicant argues that Harpell only teaches 0, 45, and 90 degrees and no values in between. Applicant has provided a declaration showing that the range of 55-75 degrees provides unexpected beneficial properties and commercial success.

It is the examiner's position that applicant has misinterpreted Harpell. In col. 4, lines 53-55, Harpell clearly teaches a range of angles "from about 45 to about 90." Harpell does not limit the angles to only 45 and 90, but rather teaches that all angles between 45 and 90 are desirable. Harpell also specifically claims this range (claim 9). The proper interpretation of Harpell renders applicant's declaration moot, because Harpell teaches applicant's claimed range and the resulting properties would be inherent. The examiner also notes that Harpell also teaches that the angle between layers "may vary widely (col. 4, lines 52-53)."

Applicant argues that Harpell only discloses flexible layers sewn together to retain flexibility and fails to teach a rigid plate. This argument is not persuasive for two reasons. First, Harpell teaches that flexibility of the fabric layers themselves can be sacrificed for a rigid composite. In col. 10, lines 54-57, Harpell teaches that additional layers can be laminated to the composite to reduce flexibility and increase ballistic protection. Second, Harpell teaches "rigid bodies" to be laminated to the composite (col. 13, lines 25-40 and col. 14, lines 44-45).

Applicant argues that Harpell only teaches the creation of personal body armor, which must remain flexible. Applicant argues that Harpell's mention of vehicle panels does not amount to a teaching that its invention is suitable for such a use. Again, the examiner disagrees with applicant's interpretation. The bulk of Harpell is focused on personal body armor; however, Harpell states that the invention is drawn to the creation of "articles having improved penetration resistance (col. 1, lines 7-9)." Harpell then specifically defines these articles as bulletproof vests, "structural members of helicopters and other military equipment, and vehicle panels (col. 1, lines 15-17)." It is the examiner's position that this amounts to a direct teaching to expand the uses of Harpell's invention beyond bulletproof vests. In the alternative, it would have been obvious to the skilled artisan that the invention of Harpell would have utility as a vehicle panel based on this disclosure.

Applicant argues that "Harpell does not suggest that the fiber layers should be bonded to form a rigid panel." To the contrary, the examiner directs applicants attention to col. 5, lines 21-24, where Harpell teaches the fibers to be secured in a polymer matrix and col. 12, lines 7-10 where Harpell teaches bonding the various layers together with an adhesive.

Applicant argues that Harpell fails to teach applicant's side aspect ratio. As applicant points out, Harpell teaches a variety of different shapes and configurations. It would have been well within the level of ordinary skill in the art to modify the shape of Harpell's composite panel. The skilled artisan would have been motivated to alter the

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shape of the panel by the desire to expand the commercial viability of the invention.

Said rejection is maintained from the last action.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Pratt whose telephone number is 703-305-6559. The examiner can normally be reached on Monday - Friday from 7 am to 4 pm.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Christopher C. Pratt
June 16, 2003

A handwritten signature in black ink, appearing to read 'C. Juska', with a long horizontal flourish extending to the right.

CHERYL A. JUSKA
PRIMARY EXAMINER